

ABSTRACT

Include Figure 2

Printed circuit boards with relatively high line speeds (for example, about one giga bit per second and above) are increasingly being developed.

5 However, at these high line speeds problems arise with via-induced spurious modes being generated and propagating and reflecting along power or ground planes within the printed circuit board. This is problematic because any active devices which reference power or ground during the presence of such a spurious mode experience a change in the reference potential. This can lead to incorrect data reception or transmission. A resistive coating is applied to the edge of a printed circuit board, directly connected to the ground planes and capacitively connected to the power planes. This resistive coating acts to absorb spurious modes and prevent these from reflecting. In addition, the capacitive connection between the power planes and the resistive coating is enhanced, for example, using metallic flanges. This further improves absorption of spurious modes by the resistive coating.

TECHNICAL REPORT